Ramionics: Formulating and calculating all physics concepts and constants including **Fine Structure Constant α**, ħ, c, K Coulomb, e, K Boltzmann, Range of dark gravity and Dark Energy, Energy density of space and (mass, charge and structure) of (matter particles and energy particles)
by Ramin Khosravi, 1st July 2025 Last version: https://Ramionics.com

1.Epigraphs: The Mystery of 137

Albert Einstein: "The constant α has the value of about 1/137. Nobody knows why. It seems to be one of the greatest unsolved problems in physics."

Max Planck: "Every dimensionless constant of nature hides a mystery; α is the deepest of them all."

Paul Dirac: "If numbers such as 137 turn out to be pure geometry, physics will finally have reached its foundation."

Enrico Fermi: "No one knows what determines the value of α, and until we do, physics will not be complete."

Niels Bohr: "In the fine-structure constant we meet a number that appears to set the scale of all electromagnetic phenomena."

Hendrik Lorentz: "The fine-structure constant connects the worlds of mechanics, electromagnetism, and quantum theory in a single dimensionless number."

Werner Heisenberg: "When I see the fine-structure constant, I get the feeling that God is telling us: 'You will never understand me completely.'"

Richard Feynman: "You might say the hand of God wrote that number and we don't know how He pushed His pencil."

Wolfgang Pauli: "When I die, my first question to the Devil will be: What is the meaning of the fine-structure constant?"

Max Born: "No theory of the universe should be regarded as complete if it cannot explain the number 1/137."

Ramin: "give me only your desired scaling for space, time and energy units. I calculate all constants in the universe and physics (including fine structure constant) using universe geometry."

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2.Introduction, Basic energy equation

Ramionics as a new physics defines the **universe** as a FCC lattice (Face-Centered Cubic) of 3 dimensional simple spherical **energy quanta** called **Ramions** (**Rotational Anti Matter and Matter ION**). Ramin's have real, measurable and calculatable parameters like energy $\mathbf{E_r}$ divided to two exactly equal linear and rotational parts of energy named $\mathbf{E_{Lr}} + \mathbf{E_{Rr}}$, Radial(compressive) force $\mathbf{F_{Lr}}$, Tangential (Rotational) Force $\mathbf{F_{Rr}}$, pressure **P** ,energy density $\boldsymbol{\rho_r} = \frac{\mathbf{E_r}}{\mathbf{V}}$,volume $\mathbf{V}=\frac{4\pi}{3}\mathbf{r^3}$ **,** radius **r** ,angular speed **ω**, rotational speed on its surface(**v=r. ω =c=light speed**) , torque **T**, rotational moment inertia **I**, mass equivalent to its energy $\mathbf{m}=\frac{\mathbf{E_r}}{\mathbf{c^2}}$ an`d even spin and electrical charge $\pm\mathbf{q_r}$ and Coulomb constant $\mathbf{k_r}$ and
$\mathbf{E_P}$: Electrical self potential energy and two poles: north and south:

(1) No limiting Critera $\rightarrow E_{Lr} = E_{Rr} \rightarrow E_r = E_{Lr} + E_{Rr} = 2E_{Rr} = 2E_{Lr} \rightarrow E = mc^2$

(2) $E_{Lr} = \frac{1}{2} m\, c^2 = PV = \frac{F_{Lr}}{4\pi r^2}\frac{4\pi r^3}{3} = \frac{1}{3} r.F_{Lr}$

(3) $E_{Rr} = \frac{1}{2} I\, \omega^2 = \frac{1}{2}(mr^2)\left(\frac{c^2}{r^2}\right) = \frac{1}{2} m\, c^2 = \frac{1}{2} r \times \left(\frac{mc^2}{r}\right) = \frac{1}{2} r \times F_{Rr} = \frac{1}{2} T = 2E_P$

(4) $g = \frac{GM}{R}\left(\frac{1}{R} + \frac{1}{R_D}\right) e^{-\frac{R}{R_D}}$, $C^4 = 8\pi G \rho_s R_D^2$, $\rho_s = \varphi \rho_r$; cosmology and thermodynamics

(5) $E_r = \rho_r V$, $E_r = 2PV \rightarrow \rho_r = 2P$, $E = 2PV \rightarrow f_r$ =degree of freedom dimensions=4

All elementary particles are formed by collapsing some ramions, distributing their energy onto other ramions and forming a black hole in size of 1 ramion as local (relative) value that can be considered as compressed mass to simplify some calculations but really its nothing: A hole in space without matter, energy, time and space. Ramions have no space to carry extra energy because they are on maximum pressure and c (light speed) so they expand space (and in consequence they expand Time to keep speed and energy unchanged) in a manner that forces and torques are balanced. It means reducing space pressure relatively that generates **gravity and strong force**. Matter-Energy transformations called **Ramionic reaction** can be calculated and predicted by ramionics preciously. In ramionics black holes are simple but huge neutrino, they distributed their energy into the space to supply needed mass of their starts.
Electrical charges exactly present torque and rotation $2K_rQ_r^2$=T. the black hole is covered by 12 ramion in same size named as wings. Each ramion carries a charge equal to 1/12 of an electron, and opposite ramion along an axis must have equal charge for torque equilibrium, the six ramion couple (±e/6) can only sustain total charge states of 0, ±1/2 e, ±2/3 e, ±e. electrical field is distributed by indentation of ramions and generate **electromagnetics and weak force**.

Linear Energy→ pressure→ relativity→ gravity & strong force
Rotational Energy→ Torque→ Electricity→ Electromagnetic & weak force

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Ramions generate, contains, transport, define, formulate, and Explain any fundamental thing in physics: space, time, compatible Relativity + Gravity + quantum, matter, antimatter and their asymmetry, Time dilation, gravity and dark gravity (so called dark matter) , space energy (so called dark energy) causing space expansion, all elementary forces: gravity (+strong force), electromagnetic (+weak force), elementary particles structure geometry, physics constants like fine structure constant or elementary particles mass or electrical charges, black hole, worm hole, entanglement, … **with no** space-time curvature, no singularity, no mass generator or force or energy carrier particle like bosons and photons, no chromodynamics, no field, no loop, no string, no extra dimension, no parallel world.

Starting point:

(6) $\alpha = \frac{K e^2}{\hbar c}$;alpha: fine structure constant; Measured values:

(7) $\frac{1}{\alpha} = 137.035999046(\pm 27)$ Cz recoil (Berkeley 2018)

(8) $\frac{1}{\alpha} = 137.035999206(\pm 11)$ Rb recoil (LKB,Paris 2020)

(9) $\frac{1}{\alpha} = 137.035999177(\pm 21)$ CODATA (2022)

CODATA: Committee on Data for Science and Technology

Ramionics calculates alpha using universe geometry simply:

(10) $\frac{1}{\alpha} = \pi \gamma^2 2^6 (1 - \frac{1}{12\left(0.5+\text{RoundUp}\left(\frac{4}{10} 12 \pi^2 2^6\right)\right)})$

(11) $\gamma = \sqrt[3]{\frac{10}{24\,\varphi}} = 0.8255785095$; Radial freedom from FCC geometry

(12) $\frac{1}{\alpha} = 137.03976507112(1 - \frac{1}{36390})$ =137.03599920783

Above value is accurate value for alpha (accuracy more than experiments)

Sensitivity checking:

$\frac{1}{\alpha} = 137.03599910434$; Using 36389

$\frac{1}{\alpha} = 137.03599920783$; Using 36390; Correct values

$\frac{1}{\alpha} = 137.03599931132$; Using 36391

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3.Geometry of the FCC (Face-Centered Cubic) lattice

3.1 Primary Parameters:

Circle's perimeter to r (radius) ratio= 2π

Circle's area to r^2 ratio= π

sphere's area to r^2 ratio= 4π

sphere's volume to r^3 ratio= $4\pi/3$

3.2 General parameters in crystallography:

Any ramion is tangent to 12 neighbors in a FCC lattice, generating maximum volume occupancy:

(13) $\varphi = \frac{\pi}{3\sqrt{2}} = 0.74048048969$ φ: Volumetric Occupancy

number of ramions in layer n:

(14) $L(n) = 10n^2 + 2$;L(1)=12; L(2)=42; **but L(0)=1** means center.

3.3 Special parameters introduced by ramionics:

The cumulative ramions number up to layer n (including it) is:

(15) $T(n) = (1 \text{ for centre}) + \sum_{k=1}^{n}(10k^2 + 2) = T(n) = 1 + \frac{10n^3+15n^2+11n}{3}$

(16) $\varphi \times (\text{Volume of Sphere by radius as } \gamma n2r) = T(n)\frac{4\pi}{3}r^3$; γ definition

(17) $\rightarrow \gamma = \sqrt[3]{\frac{10}{24\,\varphi}} = \sqrt[3]{\frac{10\sqrt{2}}{8\pi}} = 0.8255785095$ γ: Radial Freedom

(18) $\beta(\text{surface of Sphere by radius as } \gamma n2r) = L(n)\,\pi r^2$; β definition

(19) $\rightarrow \beta = \frac{10}{16\varphi'^2} = \frac{10}{16\,(\frac{10\sqrt{2}}{8\pi})^{\frac{2}{3}}} = 0.91698716849$ β:Surface Occupancy

β is calculated for πr^2 cosine normalized area (not semi-sphere area: $2\pi r^2$).

Geometrical Parameters are hidden ratios behind the fine-structure and other constants in universe. they have (0.1 … 10) range of effect as a multiplier:

(20) $\pi,\ 2\pi,\ 4\pi,\ \frac{4\pi}{3},\ \gamma = \sqrt[3]{\frac{10\sqrt{2}}{8\pi}};\ \beta = \frac{10}{8(2\gamma^2)};\ \varphi = \frac{10}{8(3\gamma^3)} = \frac{\pi}{3\sqrt{2}},\ 10{,}12$

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4.Particles and Ramionic Reactions

Using equation (10) for fine structure constant and (55) for electrical potential energy:

(21) $n_g = [K_n]\,12 \times (0.5 + \text{RoundUp}\,(W_g));\ W_g = \frac{4}{10}12\pi^2 64^g$

n_g: number of ramions in any baryon of generation g. default value of n_g is n1 sown as n

n_1: number of ramions in any B1: baryons of generation one: electrons, up, and down quarks;

K_n: 1 or 5 (different scenarios); $n1 = 36390$ or 181950 ;

W represents the Wing: Any of 12 ramions that cover the hole of particle: micro black hole

64^g : baryon generation factor

So B_1 is made of collapsing $[K_n] \times 36390$ Ramions and its equivalent energy is equal to this count of ramions energy.

(22) $n_g = [K_n]\,12 \times (\frac{W_g}{K_W})$; $K_W = \frac{W_g}{0.5+\text{RoundU}\ \ (W_g)}$

$W_0 = 47.374$; $n0 = [K_n]\,12 \times 48.5 = [K_n]\,582$; $K_W = \frac{47.374\ldots}{48.5} = 0.97678559021$

$W_1 = 3031.94$; $n1 = [K_n]\,12 \times 3032.5 = [K_n]\,\mathbf{36390}$; $K_W = \frac{3031.94247\ldots}{3032.5} = 0.99981614906$

K_W and K_Q factors are dependent to g (but independent of packet scenario).

(23) $\frac{3\varphi}{\gamma^3}12^2 = \frac{4\pi^2}{10}\ 12^2 = \frac{4}{10}(12\pi)^2$: FCC Golden Number for maximum balance, stability, symmetry and on volume /surface, Energy /Torque for a FCC particle.

7 possible **packet scenarios** for main **ramionic reaction** (of transforming energy to baryon)

Scenario 1: $[K_n]$: 5 $[K_p]$: 1

In collapsing layers 1 to 119 **one packets** (of 31 B1) is formed and then transformed to **one** packets (of 7 protons+1 neutrons +7 electrons) until layer 479.

Scenarios 2 or 3: $[K_1]$: 1 $[K_p]$: 5 or 6

In collapsing layers 1 to 119 **five packets** (of 31 B1) are formed and then transformed to $[K_p]$ packets (of 7 protons+1 neutrons +7 electrons) until layer 479.

so $[K_p]$: 6 means an extra packet is produced after layer 119.

Scenario 4: like scenario 1, but 36400 instead of 36390, 36400 is bette because it is seen in ramion to baryon mapping coefficients as we will see. This extra 10 ramions shows any wing

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reaches to more stability (less energy) when its ramions are 100 multiplier because of factor 10 in equation (14) and maybe its default rotational (magnetic) energy.

Scenario 5: like above scenarios, but suppose (21) defines only one wing's ramion number; and baryon energy is 12*36400 ramion. it changes calculated baryon energy (divides it by 12) but has no effect on ramion to baryon mapping coefficients or radius because hole radius end wing radius are same.

Scenario 6: like above scenarios, but suppose 36400 is one wing ramion number; baryon energy is 24*36400 ramion energy, Because we suppose only ½ of ramions energy sits on wings as electrical charge, the other part of energy is distributed.

Scenario 7: suppose 36400 ramions is only for electrical charge of particle carried on any wings but for calculating all energy of particle distributed in the space we must calculate extra energy of all ramions in the space, If layer 1 has 12×36400 ramions how much energy is saved in layer 2 and so on. We know on FCC layer 1 volume of 12 wings are divided to equal inside/outside volumes at $R_E = 2.2360679775\ r$ so We can say energy save From $R = 0$ to R_E is 6×36390

(24) $E = \frac{R_D}{R_E} \times (6 \times 36400)$; from (96)(97)

Strong layers against collapsing are the layers that have maximum similarity to ideal sphere so they have most similarity to layer 1 (with 12 ramions) and layer infinity which have $10n^2+2$ ramions (approximately 10 multiplier number), So they are 12×10 = 120 multipliers.

Super strong layers: $120, 480, \ldots, 4^k120, \ldots$

In Super strong group larger layers are stronger.

Strong layers: other 120 multipliers and 120 factors

1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 24, 30, 40, 60, 240, 360, 600, …

In this group layers 1 (full tangent) and layer 30=120/4 (means baryon generation 0) and layer 60 (multiplier of 10 and 12) are stronger than the others. layers 2,4,6 are a little weaker than their neighbours because strength function is an oscillatory function.

Relative Weak layers (geometrical mean between strong layers):

7, 9, 11, 13, 17, 22, 27, 35, 49, 85, 170, 294, …

Layers 4^k120 are needed to keep maximum similarity in quantum level between radius, surface and volume ratios, this means generation factor of 64^g

If layers 480 collapses then collapsing is continued until layer 16*120 to produce baryons of generation 2 so baryons in any generation have factor of $4^{3g} = 64^g$

Energy balancing of most important ramionic reaction in the universe:

In Ramionic reactions **most similar, great particles** are produced as main products, it usually means prime number:

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Baryon balancing till layer 119:

(25) Main Ramionic Reaction $\begin{cases} T(119) = 5688439 = 5\{31 * (36390 + 309) + 18\} + 4 \\ T(119) = 5688439 = 31(181950 + 5 \times 309) + 94 \end{cases}$

Neutrino balancing:

$5 \times 309 = 1545;\ N7 = 1415;\ N4 = 309;\ N3 = 147;\ N2 = 55;\ N1 = 13;\ N0 = N(1)=1$

Neutrino notation:

N(n): A neutrino with n ramion energy

Nn: N(T(n)) for example N4=N(309) because T(4) is 309: Ramions number to layer 4

The Second type neutrinos have more chance to be generated or absorbed.

Neutrinos may start, interrupt, stop ramionic reactions and may be absorbed to or emitted (radiated) of it.

Neutrinos have short life if they get electrical charge, Baryons vice vera;

Black holes in the sky are huge neutrinos, most of them distributed their energy into the space because in some stochastic conditions small layers like 120, 480 could not stop the ramionic reaction (started by some quantum fluctuations) then very large layers did it.

Electrical charge balancing:

Up quark charge: +2/3 e

Down quark charge: -1/3 e

Proton= 2 (Up quark) +1 (Down Quark) → charge: +1

Neutron= 1 (Up quark) +2 (Down Quark) → charge:0

Any packet (31 B1 without electrical charge) can be transformed to (15 U +9 D +7 e) after **getting** electrical charge (**means emitting** equivalent electrical Potential energy) then transformed to (7 protons +7 electrons +1 neutron) after getting extra energy of collapsing layers 120 to 479. This extra energy saved as rotation (magnetic not electric) majority in Proton and Neutrons (with larger radius than electron). Electrical charge of this reaction is balanced.

31,15,7 in this packaging are $2^n - 1$ and 9 is $2^n + 1$ means **neutron to proton ratio of 7**

Strong layers can stop (or at least reduce ramionic reaction speed to create an opportunity for particles to settle charges and merging together). So we expect number of baryons at layer 119 to be **prime number** 31 but Maybe electrical charging or process speed let factor 5 to appear in the final number of ramion 5*31.

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5.Ramion energy (E_r)

Ignoring rotational (magnetic energy) of electrons (in comparing to proton and neutron rotational energy with grater radius) And some little neutrino absorbed or emitted, Main Ramionic Reaction to produce B1 (Electron, Up and down quarks) is:

(26) $(T(479) - 31 \times 5 \times 309)E_r = K_P(1\ E_N + 7\ E_{Pr} + 7\ E_e)$

$E_N = 939.56542052$ MeV $E_{Pr} = 938.27208816$ MeV $E_e = 0.51099895000$ MeV

$$E_r = K_P \frac{7511.04703029\ \text{MeV}}{367489759-31\times5\times309} \quad ;T(479) = 367489759$$

(27) $E_r = [K_E]\ 102.2072845555\ \text{eV} = [K_E]\ 1.6375412314 \times 10^{-17}\text{J}$

If N4 neutrino are absorbed and not radiated:
$k_{Neu} = 1 - \frac{31\times5\times309}{367489759} = 0.99986966984$
If 36400 used instead of 36390:
$k_{100} = \frac{36400}{36390} = 1 + \frac{10}{36390} = 1.000274800769$
In scenarios 5 and 6 K_E must be devided by 12 and 24

K_E $E_e = 0.51099895\text{MeV}$	Scenario 1 $K_E = 1$ means: $K_p = 5;\ K_n = 1$	Scenario 2 $K_E = \frac{1}{5}$ means: $K_p = 1;\ K_n = 5$	Scenario 3 $K_E = \frac{6}{5}$ means: $K_p = 6;\ K_n = 1$
$n=N_{b1}$	36390	181950	36390
E_r	102.2072845555 eV	20.4414569111 eV	122.649414666 eV
$E_{b1} = N_{b1}E_r$	3.719323084975 MeV 7.27853371318 E_e $\approx$ (7) E_e	Same as K_E=1	4.463187702 MeV 8.73424045582 E_e
$E_{Pe} = E_{B1} - E_e$	3.20832413498 MeV 6.27853371318 E_e	Same as K_E=1	3.95218875197 MeV 7.73424045582 E_e
Method 1: $E_D = E_{B1} - \frac{E_{Pe}}{9}$	3.36284262553 MeV	Same as K_E=1	4.02405561842 MeV
$E_U = E_{B1} - \frac{4E_{Pe}}{9}$	2.29340124721MeV	Same as K_E=1	2.70665936776 MeV
Method 2: $E_D = E_{B1} - \frac{6E_{Pe}}{66}$	3.42765725452 MeV	Same as K_E=1	4.10389781546 MeV
$E_U = E_{B1} - \frac{28E_{Pe}}{66}$	2.3582158762 MeV	Same as K_E=1	2.7865015648 MeV

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When a packet get electrical charge it means delivering this energy to the reaction:
In **qurarks** up and down energy calculations we have two methods:

Method 1: wings get charge together and continuous

(28) $\mathrm{E_P} \propto Q^2 \rightarrow \mathrm{E_D} = \mathrm{E_{B1}} - \frac{\mathrm{E_{Pe}}}{9}\ ,\ \mathrm{E_U} = \mathrm{E_{B1}} - \frac{4\mathrm{E_{Pe}}}{9}$

(29) $\frac{\mathrm{E_P\ of\ Packet}}{\mathrm{E_{Pe}}} = (15 \times \frac{4}{9}) + (9 \times \frac{1}{9}) + (7 \times 1) = 14\frac{6}{9}$=14.666666

Method 2: wings get charge discretely and separately (seems to be more accurate) see (54)

(30) $\mathrm{E_P} \propto \sum_{k=1}^{n}(k-1) = \frac{n(n-1)}{2}, n: 4,8,12 \rightarrow \mathrm{E_P} \propto (6,28,66) \rightarrow \mathrm{E_D} = \mathrm{E_{B1}} - \frac{6\mathrm{E_{Pe}}}{66}\ ,\ \mathrm{E_U} = \mathrm{E_{B1}} - \frac{28\mathrm{E_{Pe}}}{66}$

(31) $\frac{\mathrm{E_P\ of\ Packet}}{\mathrm{E_{Pe}}} = \left(15 \times \frac{28}{66}\right) + \left(9 \times \frac{6}{66}\right) + (7 \times 1) = 14\frac{6}{9} = 14.181818$

About Scenarios 1 to 3:
Scenario 1 have more probability because we see 36390 in K_Q and G formulas.
Scenario 2 is possible because it means 31 baryons at layer 119 (and 31 is a prime number) and Scenarios 1 and 3 correspond t0 5*31 particles (that is not a prime number) **but** may be collapsing layer 120 leaves no opportunity to 5 baryon merging
Scenario 3 is possible because it results in more similar values to gluon modelling results $\mathrm{E_D} = 4.8\ \mathrm{MeV}\ , \mathrm{E_U} = 2.3\ \mathrm{MeV}$ but ramionics calculations are based on universe particles to have higher accuracy without any modeling based particle like gluon.

Currently scenarios 6 of 4 of 1 seems to be mora accurate.

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6.Discovering and Calculating Planck Constant

When a matter particles (a neutrino or a baryon with $E_B = nE_r$ energy) is made of n ramion (ramion: Energy particle: Energy quanta) they collapse or explode and their energy is distributed into other ramions and a particle hole (exactly a black hole) is remained covered by 12 ramion named as wing.

We must analyse all space (toward all depths of universe) To analysis this particle (for example its gravity or electricity) which needs many integral calculations while we can ususally suppose a theoretical (or even imaginary) matter at that black hole area.

In most application we can suppose a point mass $m = E_n/c^2$ without any rotation in the center of hole. For more accuracy we can see theoretical matter is made of ramions (that have equal linear and rotation energy) so it has this property by default (without getting extra energy for example as photon) like all ramions:

(32) $E_B = E_{LB} + E_{RB}\ ;\ E_{LB} = E_{RB}\ ;\ E_{LB} = \frac{1}{2}mc^2;\ E_{RB} = \frac{1}{2}I_B\omega_B^2$

(33) $\rightarrow E_B = mc^2 = I_B\omega_B^2$

(34) $I_B = \int \rho_m\, r^2 dV = K_I m R_B^2$; I_B:Rotational Inertia ; R_B :Rotation Radius

K_I examples: loop:1, disk:1/2 , spherical surface: 2/3, spherical volume:2/5

(35) $R_B = K_{Rad} \times r$; r: ramions radius

K_{Rad} Examples: ramion size=hole size:1

wings electrical charge surface= max gravity=event horizon: $\sqrt{5}$

(36) $\boxed{E_B = \hbar_B\omega_B\ ;\ E_r = \hbar_r\omega_r}$; Planck constant definition for baryon and ramion

(37) $R_B E_B = R_B(\hbar_B\omega_B) = \hbar_B(R_B\omega_B) = \hbar_B c_B;\ c_B = R_B\omega_B$

(38) $\boxed{\hbar_B = \frac{R_B E_B}{c_B} = \frac{E_B}{\omega_B}}$;more fundamental definition

(39) $E_B = I_B\omega_B^2 = (K_I m R_B^2)\omega_B^2 = mc^2 \rightarrow K_I R_B^2\omega_B^2 = c^2\ ,\ c_B = \frac{c}{\sqrt{K_I}}$

(40) $\rightarrow K_I(K_{Rad}r)^2\omega_B^2 = c^2 \rightarrow \omega_B = \frac{\omega_r}{K_{Rad}\sqrt{K_I}}$

Neutrino(1) energy is equal to 1 Ramion:

(41) $\hbar_{N(1)}\frac{\omega_r}{K_{Rad}\sqrt{K_I}} = \hbar_r\omega_r \rightarrow \hbar_{N(1)} = K_h\hbar_r;\ K_h = K_{Rad}\sqrt{K_I}$

(42) $\boxed{\hbar_B = K_h n^4 \hbar_r}$

The origin of n^4 will be explained soon. In ramionics we know that $\hbar, c, K, G, \rho$ need a factor of n's power when n is number of ramions in desired particle.

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We can select sahape, K_I, K_{Rad} of imaginary particle proper to simplify our calculations. for example:

In Ramionic level analyses it's better to select $K_{Rad} = 1, K_I = \frac{2}{5}, K_h = \sqrt{\frac{2}{5}}$ means a particle as an spherical volume in size of particle hole itself without indentation with wings.

In Gravity and electromagnetic calculation: $K_{Rad} = \sqrt{5}, K_I = \frac{2}{3}, K_h = \sqrt{\frac{10}{3}}$

In scaling constant and units: $K_{Rad} = \sqrt{\frac{1}{K_I}}, K_h = 1$

Anyway K_h factor effect range is (0.1 …10) like geometrical parameters.

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7. Calculating Ramion Radius and electron radius, scaling units (r, c, E_r)

(43) Second unit: has been defined based on 9,192,631,770 oscillation of microwave radiation of cesium-133 atom transition between its two hyperfine energy levels From 1967.
Also c and h have been fixed on this standard values (without any more digits) as basic scaling units (instead of standard meter and Kg samples) From 2019:

(44) $c_r = 2.99792458 \times 10^8\ m/s$; Light Speed in vacuum space means for ramions

(45) $h_{B1} = 6.62607015 \times 10^{-34}\ J \cdot s$; as we and our devices sense means B1

$\hbar_{B1} = \frac{h_{B1}}{2\pi} = 1.05457182 \times 10^{-34}\ J \cdot s$;redused plank constant

We use above data and also we Calibrated E_r based on energy (or equivalent mass) of a{7 Protons+1 Neutrons+7 Electrons} Packet:

(46) $E_r = [K_E]\ 102.2072845555\ eV = [K_E]\ 1.6375412314 \times 10^{-17} J$

Now we can calculate any physic constant by (r, c, E_r)

(47) $\hbar_B = K_h n^4 \hbar_r \rightarrow \hbar_r = \frac{\hbar_B}{n^4 K_h} = [{K_n}^{-4}]\frac{1}{K_h} 6.01378557098 \times 10^{-53}$ Js

$36400 \rightarrow \hbar_r = [{K_n}^{-4}]\frac{1}{K_h} 6.00717973821 \times 10^{-5}$ Js ;Ramion's ħ

(48) $r = \frac{\hbar_r c_r}{E_r} \rightarrow r = [{K_E}^{-1}{K_n}^{-4}]\frac{1}{K_h} 1.10097231364 \times 10^{-27} m$;Ramion's r

$36400 \rightarrow r = [{K_E}^{-1}{K_n}^{-4}]\frac{1}{K_h} 1.100669848719 \times 10^{-27} m$

(49) $r_n = nr \rightarrow r_e = [{K_E}^{-1}{K_n}^{-4}]\frac{1}{K_h} 4.0064382493 \times 10^{-23} m$;Electron's r

$36400 \rightarrow$ same

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8.Calculating Coulomb and Fine-Structure Constants

(50) $R^2F = k_{B1}\, e^2 = \alpha\, \hbar_{B1}\, c_r$; definition

Electrical Charge is equivalent to Torque and rotational Energy so similar electrical charges repel each other so collecting them on any surface needs energy (Like any capacitor) that can be calculated by two simple integrals (**Electromagnetic self energy**)

(51) $E_r = 2\, E_{Rr} = 4\, E_P = T$ =Torque

(52) $E_{\Delta Q} = \int_{\infty}^{r} -F\, dr = \int_{\infty}^{r} \frac{-\, K_r\, Q\, \Delta Q}{R^2} dR = \frac{K_r\, Q\, \Delta Q}{r}$ minus sign: save Energy

(53) $E_P = \int_0^{q_r} \frac{K_r\, Q\, dQ}{r} = \frac{K_r\, {q_r}^2}{2r}$ for any sphere or semi sphere with q_r charge

for particles consisted of n Ramion:

(54) $E_P = \sum_{t=2}^{n} (t-1)\ \frac{K\,(Q/n)^2}{2\, R_Q}$ R_Q: radius for charges surface

(55) $E_p = \frac{K}{2\, R_Q} \left(\frac{Q}{n}\right)^2 \frac{n\,(n-1)}{n^2} = \frac{K\, Q^2}{2\, R_q}\left(1 - \frac{1}{n}\right)$

(56) $K_Q = \left(1 - \frac{1}{n}\right)$; **Quantum Factor**

(57) $K_Q = \left(1 - \frac{1}{36390}\right) = 0.99997251992$; B1's Quantum Factor

(58) $E_r = 2 \times 2 \times \frac{K_r\, {q_r}^2}{2r}$

(59) $\rightarrow \alpha_r = \frac{K_r\, {q_r}^2}{E_r r = \hbar_r\, c_r} = \frac{1}{2}$

The coefficient Quantum Factor refines formulas needed to compensate error of continuous calculation on really discrete parameters. Here it converts Q^2 (considered as continuous parameter) to Q^2 as a discrete charge produced by ramions.

K_Q and K_W are dependent to g but independent of packet scenario

(60) $\frac{1}{\alpha} = 2^6\, \pi\, \gamma^2 \left(1 - \frac{1}{\frac{12}{2} + 12\ \mathrm{RoundUp}\left(12\, \pi^2\, 2^6 \times \frac{4}{10}\right)}\right) \rightarrow \frac{1}{\alpha} \propto n \rightarrow\ \alpha \propto \frac{1}{n}$

(61) $R^2F = \alpha_{B1}\, \hbar_{B1} c \rightarrow\ K_{B1} e^2 \propto n^3$

(62) $(K_{B1} Q_{B1}^2) = (K_r Q_r^2) \left\{ n^3\, \frac{K_h}{K_w K_Q}\ \pi\beta \left(\frac{96}{10}\right)^2 \right\}$

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Electrical charge is essentially a conventional parameter, yet the simplest convention seems to be assume that the Coulomb constant and electrical charge both are proportional to n.

Anyway in mutual state forexample force between b1 and b2 must be calculated by geometrical mean of $(K_{B1}Q_{B1}^2)$ and $(K_{B2}Q_{B2}^2)$

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9. Calculating G and other cosmological physic constant

Calculating G (for baryon B1)

(63) $hE_r = \int_0^r G_r\, m\, dm \frac{1}{R}\ ;\ m = \left(\frac{4}{3}\right)\pi R^3\rho;\ dm = 4\,\pi R^2\rho\, dR$

$\rightarrow G_r = \frac{5\, r\, c^4}{3\, E_r} = 9.88141241595 \times 10^{27}\ m^3kg^{-1}s^{-2}$; Gravitational Self Energy

From above equation we understand that c for particle n is $\frac{c_r}{n^8}$

(64) $G = G_r \frac{n^8}{48} = \frac{\hbar\, c^5}{96\, n^9\ E_{B1}^2} = \frac{\hbar\, c^5}{96\, n^{11}\ E_r^2}$; Ignoring K_W and K_Q ;

The exclusive way to Refine geometrical formula for G is increasing n from 36390 to 36400 it is the best sign for single baryon rotational (magnetic) energy equal to 10 ramion energy

(65) $G = \frac{\hbar\, c^5}{96\, n^{11}\ E_r^2} = 6.6743462768\ \times 10^{-11}\ m^3kg^{-1}s^{-2}$

Above value is accurate value for alpha (accuracy more than experiments)

(66)

$G = 6.67430(\pm 15) \times 10^{-11}$ experimental value, means 6.67415 to 6.67445

Sensitivity check:

$G = 6.6763754123\ \times 10^{-11}$; Using n=36390+9

$G = 6.6743462768\ \times 10^{-11}$; Using n=36390+10; correct values

$G = 6.6723296365\ \times 10^{-11}$; Using n=36390+11

(67) $\rho_{sr} = \varphi \frac{E_r}{\frac{8\pi}{3}r^3} = \frac{\pi}{3\sqrt{2}} \frac{1.6375412314\times 10^{-17}J}{\frac{8\pi}{3}(4.0064382493\times 10^{-23})^3} = 2.25067039743 \times 10^{49} \frac{j}{m^3}$

(68) $C^4 = 8\pi G\rho_s R_D^2$; Eq(97)

$LY = Light\ Year = 9.460730472580800\ \times 10^{15} m$

(69) $R_{Dr} = \sqrt{\frac{C^4}{8\pi G\rho_s}} = 3.80150891944 \times 10^{-23}\ m = 4.0181980984\times 10^{-3}\ \ LY$

This theory models matter, dark matter, and waves by altering the arrangement of Ramions, and therefore only the energy of space must be taken into account in calculations of the age and dimensions of the Universe.

Studies based on this theory open many avenues concerning the expansion of the Universe, the Big Bang, and cosmology, in addition to relativity, quantum theory, and elementary particles.

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In Ramion Theory all of universe is filled by Ramion, Ramion and space energy density is same even close to matter, so **maybe** we have to consider Dark energy (= Space energy density) share as 100% in calculation on Hubble constant H0, means 14.46×10^9 year Universe age and 14.46×10^9 LY observable radius.

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